

AMENDMENTS TO THE CLAIMS

The claims listed below replace all prior versions and listings of claims in the application.

1. Canceled.
2. Canceled.
3. Canceled.

4. (Currently Amended) An ink composition comprising:

(a) a liquid medium;

(b) a pigment;

(c) at least 0.1% by weight of the ink of an amphiphilic material having the formula



R represents an alkyl, aryl, alkyl-aryl or alkenyl group;

Q represents a hydrophilic repeating unit of ethylene oxide or propylene oxide, wherein
 $n > 4$;

A⁻ represents a sulfate, sulfonate or phosphate group;

M⁺ represents a cation such as potassium, sodium, lithium or ammonium;

and where if the pigment is a modified carbon black with organic groups covalently
bonded thereto, the amphiphilic material has the same charge as the modified carbon
black; and

(d) The ink composition of Claim 1 further comprising at least 0.1% by weight of the
ink of a second amphiphilic material, where the second amphiphilic material has the formula



X represents hydroxyl or amino functionality;

Q represents a hydrophilic repeating unit of ethylene oxide or propylene oxide, wherein
 $n > 4$;

R' represents C₁ to C₆ alkyl functionality;

Y represents oxygen, nitrogen or sulfur; and

R represents an alkyl, aryl, alkyl-aryl or alkenyl group.

5. (Original) The ink composition of Claim 4 where the second amphiphilic material is one or more compositions selected from the group of (a) alkyl, aryl, alkyl-aryl or alkenyl mercaptan ethoxylates and (b) alky phenol ethoxylates.

6. (Original) The ink composition of Claim 4 wherein the ink comprises no more than 10% of the second amphiphilic material on a weight basis.

7. Canceled.

8. Canceled.

9. (Currently Amended) An ink composition comprising:

(a) a liquid medium;

(b) a pigment;

(c) at least 0.1% by weight of the ink of an amphiphilic material having the formula

$XQ_nR'-Y-R$ where

X represents hydroxyl or amino functionality;

Q represents a hydrophilic repeating unit of ethylene oxide or propylene oxide, wherein $n > 4$;

R' represents C_1 to C_6 alkyl functionality;

Y represents oxygen, nitrogen or sulfur; and

R represents an alkyl, aryl, alkyl-aryl or alkenyl group; and

(d) The ink composition of Claim 7 further comprising at least 0.1% by weight of the ink of a second amphiphilic material, where the second amphiphilic material has the formula

$R-O-Q_nA^+M^+$ where

R represents an alkyl, aryl, alkyl-aryl or alkenyl group;

Q represents a hydrophilic repeating unit of ethylene oxide or propylene oxide, wherein $n > 4$;

A^+ represents a sulfate, sulfonate or phosphate group; and

M^+ represents a cation such as potassium, sodium, lithium or ammonium.

10. (Original) The ink composition of Claim 9 where the second amphiphilic material is one or more compositions selected from the group of (a) alkyl, aryl, alkyl-aryl or alkenyl ether phosphates and salts thereof, including sodium, potassium, ammonium and lithium salts; and (b) alkyl, aryl, alkyl-aryl or alkenyl ether sulfates and salts thereof, including sodium, potassium, ammonium and lithium salts.

11. Canceled.

12. Canceled.

13. (Currently Amended) An ink composition comprising a liquid medium, a pigment and at least 0.1% by weight of the ink of an amphiphilic material having the formula

$R-O-Q_nA^+M^+$ where

R represents an alkyl, aryl, alkyl-aryl or alkenyl group;

Q represents a hydrophilic repeating unit of ethylene oxide or propylene oxide, wherein n is at least 50;

A⁻ represents a sulfate, sulfonate or phosphate group;

M⁺ represents a cation such as potassium, sodium, lithium or ammonium;

and where if the pigment is a modified carbon black with organic groups covalently bonded thereto, the amphiphilic material has the same charge as the modified carbon black. The ink composition of Claim 1 wherein n is at least 50.

14. (Previously presented) The ink composition of Claim 9 wherein n of the second amphiphilic material is at least 11.

15. (Previously presented) The ink composition of Claim 9 wherein n of the second amphiphilic material is at least 30.

16. (Previously presented) The ink composition of Claim 9 wherein n of the second amphiphilic material is at least 50.